Minnesota Department of Health

# Indoor Air Quality Management Plan

**[School / District Name]**

**[Date Created]**

***[Bolded and italicized sections in this Plan should either be completed according to the instructions or simply deleted. The headers should be replaced to identify your school or district name, name of plan, and the date or version of the plan.***

***Every Minnesota public school district must have a health and safety program that complies with health, safety, and environmental regulations and best practices including indoor air quality management. This includes charter schools. (Minn. Stat. § 123B.595, Subd. 4. Facilities plans; and Minn. Stat. §124E.03, Subd.2. General federal, state, and local requirements.)***

***There are four types of policies described in this Model Plan.***

* ***‘Required’***
  + ***policies that are the minimum to comply with the state statutes that require IAQ plans in public schools (shown above) and associated MDE policy letters.***
* ***‘Recommended in IAQ Plan; but certain* regulations apply*’***
  + ***districts must comply with these regulations, regardless of whether they are included in the IAQ Plan; these policies should be in the IAQ Plan.***
* ***‘Recommended in IAQ Plan; certain regulations may apply’***
  + ***districts may need to comply with these regulations (depending on conditions at school buildings); these policies should be in the IAQ Plan, if applicable.***
* ***‘Recommended’***
  + ***policies that do not have to be included in the IAQ Plan and that are not regulated; nonetheless, these are significant issues that should be considered in the IAQ Plan.***

***Policies should be unique and tailored to the specific needs of the district. Additional guidance and tools, such as checklists, forms and schedules, can be found in the*** [***MDH IAQ Plan Development Package (https://www.health.state.mn.us/communities/environment/air/schools/plan.html)***](https://www.health.state.mn.us/communities/environment/air/schools/plan.html)***].***

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### 1. Indoor Air Quality Coordinator *[Required]*

**[*school /district*]** has identified **[*name of person*]** as the Indoor Air Quality Coordinator. The coordinator administers the IAQ Management Plan. The school administration and school board are committed to providing the necessary support to implement the IAQ Plan. The IAQ Coordinator reports to ***[identify administrator, board, etc.]. [The IAQ Coordinator has been trained through a Minnesota Department of Health IAQ Coordinator Training, EPA training, other comparable training].***

The IAQ Coordinator is:

1. an individual that is either based in the district or spends most of their time in the district.
2. able to answer basic questions from parents:
   1. where parents can find answers to their IAQ questions and concerns;
   2. where parents can obtain checklists and self-help information to evaluate their child’s out-of-school situation ***[for example, using the list of resources that can be found in Attachment 4];***
   3. how parents can access information about the school; and
   4. what parents can do—how parents can effect change.
3. authorized to respond to parents and local complaints as well as problems and complaints forwarded by state agencies.
4. fulfills a separate IAQ function from that of building systems maintenance expert.

***[The IAQ Coordinator’s responsibilities also include:***

1. ***Develop and implement a written IAQ Management Plan, encompassing the U.S. EPA ‘Tools for Schools’ and MDH guidelines***
2. ***Conduct and document an annual building walkthrough.***
3. ***Conduct and document an annual ventilation and building evaluations.***
4. ***Monitor plan implementation including documenting issues and work practices that require indoor air quality remediation.***
5. ***Inform and educate staff about indoor air quality procedures and policies.***
6. ***Develop a communication plan/policy to include response to building complaints.***
7. ***Respond to regulatory agency correspondence, guidelines, and recommendations.***
8. ***Monitor regulatory changes and new developments.***
9. ***Review the IAQ Plan and obtain school board approval at least annually.***
10. ***Notify parents about the IAQ Coordinator through (annual newsletter, policy letter, website, etc.)***
11. ***Communicate proactively with staff, parents, and other parties regarding the progress made with the IAQ Plan and any other relevant IAQ information.***
12. ***Manage IAQ projects.***
13. ***Manage compliance with other IAQ-related regulations, such as smoking, vaping, asbestos, lead, vehicle idling, mercury, and pesticide applications.***
14. ***Review and approve renovation projects to determine whether they appropriately address IAQ concerns and are consistent with the IAQ Management Plan and other requirements.***
15. ***Report IAQ activities (such as routine assessment, concern investigation, addressing identified issues) to (administrator name).***
16. ***Coordinate the IAQ Team’s activities and meetings.]***

### **2. School Board Adoption [Required]**

The school board adopts the IAQ Plan as part of the ten-year facility plan ***[required of school districts and intermediate districts, not charter schools, under statute 123B.595]***. The **[*school/district*]** school board adopted the first district IAQ Plan on **[*insert date*]** as part of the ten-year facility plan. School board adoption is obtained every year. School board minutes indicating annual IAQ Plan approval are maintained at **[*name location, for example an Attachment to this IAQ Plan*]**.

### **3. Annual Update** *[Required]*

**[S*chool/District*]** performs an annual update of the IAQ Plan, as part of the updates to the ten-year facility plan ***[which is required of school districts and intermediate districts, not charter schools, under statute 123B.595]***. Records of the annual update are maintained **[*name location, for example, as an Attachment to this IAQ Plan*]**.

***[An annual review is necessary because changes may occur that relate to the building, operations, maintenance, occupants, and administrative priorities. Earlier versions of the IAQ Plan and the yearly ‘Plan to Address Identified Issues’ are retained. This provides a history of IAQ policies and procedures and should reduce the likelihood of repeating policies and procedures that were ineffective or inefficient.]***

The annual review involves:

1. Verifying an IAQ Coordinator is functioning in the roles stated under the ‘IAQ Coordinator’ policy

Ensuring an operational IAQ Management Plan is implemented

***[School board review***

***Walkthrough inspections***

***Building systems evaluations***

***Reviewing IAQ Concern Reports and other information***

***Discussing new issues with the IAQ Team***

***Creating a ‘Schedule to Address Identified Issues’***

***Reviewing and changing the IAQ Management Plan as needed]***

### 4. Goals and Objectives *[Recommended]*

The health, comfort, and learning environment of students and staff are important aspects of ***[school / district]*** mission. Indoor air quality (IAQ) is a critical component for a healthful and comfortable learning environment. **[*school / district*]** IAQ goals are as follows.

1. Minimize indoor air pollutants, which will reduce the likelihood of health problems, including asthma, transmission of infections, respiratory symptoms, and potential chronic health risks.
2. Manage temperature, humidity, ventilation, and associated conditions, which will foster students’ comfort and learning.
3. Prevent indoor air quality problems, which will slow building deterioration, avoid school closures, minimize liability risks, and foster a positive relationship among parents, teachers, and the school administration.

***[school / district]*** has implemented an IAQ Management Plan that will monitor and improve the quality of air in school buildings. The objectives of the IAQ Plan are the following.

1. Reduce the levels of indoor air pollutants through preventive measures such as routine maintenance activities, periodic building evaluations and inspections, and IAQ-specific policies.
2. Provide and maintain adequate air exchanges by maintaining ventilation equipment.
3. Respond to IAQ-related concerns and problems in a thorough and prompt manner, through investigation, documentation, and effective communication.

***[This introduction/goals section can also include information such as:***

* ***More information, beyond what is in stated in MDH’s Model Plan, on IAQ and its importance to health and comfort***
* ***Disclaimers that may be necessary and prudent. If any sections or parts of sections of the IAQ Plan conflict with any applicable building codes or other laws, then those codes and laws should take precedence***
* ***Reference to or information about regulations and statutes that is relevant to the IAQ Management Plan (such as building codes, chemical use regulations, and record keeping requirements)***
* ***Discussion of funding sources needed for IAQ Management Plan implementation, such as renovations and operational changes***
* ***Phone numbers and contact information: for example, MDH, USEPA, service providers, etc.].***

### 5. Indoor Air Quality Team *[Recommended]*

***[School / District]*** has established an IAQ team that represents ***[staff, students, parents, service providers]***. The IAQ team assists the school administration by reviewing IAQ-related information and recommending IAQ policies to maintain and improve the air quality within district facilities and school buildings.

The Indoor Air Quality Team is composed of the following individuals:

Name Job Title Contact Information Team Role

The IAQ team is involved in the following efforts.

1. The team members contribute to the IAQ Plan creation and implementation. The IAQ team members have reviewed the United States Environmental Protection Agency’s (USEPA) IAQ Tools for Schools (TfS) kit, focusing on the ‘backgrounder’ resources and checklists relevant to each team members’ expertise*.*
2. The team evaluates non-routine IAQ concerns that have been reported to the IAQ Coordinator. The Team takes steps or recommends measures to resolve the reported concern.
3. The team meets regularly **[*monthly, quarterly, biannually, or other timeframe, as part of regularly scheduled health and safety meetings*]** to review ongoing IAQ issues and projects.
4. The team meets **[*annually or as needed, indicate frequency*]** to conduct an annual review of the IAQ Plan.
5. Meeting minutes, reports and other documents are kept with the IAQ Plan in ***[note location of files],*** and this information is routinely accessible to ***[IAQ team, administrators, etc.].***

### 6. Building Evaluations *[Recommended]*

School buildings are evaluated every year. The evaluations cover the ventilation systems and maintenance activities. The ventilation evaluation checks air intakes, air filters, condensate areas, coils, cleanliness, mechanical rooms, dampers, controls, air movement, exhaust fans and **[*measuring air flow rate (Activity 22 and 23 of the Tools for Schools Ventilation Checklist)*].** The maintenance evaluation checks building supplies, dust control, floor cleaning, drain traps, moisture, and combustion appliances.

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**[*The ventilation systems and building maintenance should be evaluated using the TfS checklists or an equivalent evaluation. This section should describe which of the two approaches is being used. If you choose to conduct an equivalent evaluation (such as using a different checklist, on-line survey, or ‘super-walkthrough’), see Appendix A and the checklists to ensure its equivalent to the Tools for Schools checklists. You should keep at least one copy of each evaluation for each building every year.*]**

**[*Option 1*]:**

The IAQ in ***[school / district]*** buildings are evaluated by surveying staff every year with Tools for Schools checklists ***[or if a different checklist is used, state it and where it can be found]***. This survey helps identify and evaluate potential IAQ issues that may be associated with the buildings’ ventilation and maintenance. Specific staff have ventilation and maintenance responsibilities, and therefore may provide insight that would be missed through other evaluation methods. The checklists also educate staff about IAQ. The checklists are not intended to report individual health problems; a separate concern form is available and more appropriate for this purpose (the form can be found in Attachment 2).

The [***IAQ Coordinator, Team, Principal, etc.***] administers and evaluates the checklists each year during ***[time of year].*** The following checklists are used: **[*for example, the “Maintenance” and “Ventilation” checklists, but additional checklists, provided in the TfS kit, could be considered*].** A memo accompanies the distributed checklists, which explains the purpose of the checklists and any special instructions to effectively fill out the checklists **[*the sample memos in the TfS kit may be used*]**.

The ***[school /district’s]***goal is to recover **[*insert goal, such as 100 percent*]** of the checklists distributed. If response rates are low or information provided is not useful, the ***[school/district***] may switch to a different equivalent method of evaluating buildings systems.

**[*Option 2*]:**

The IAQ in ***[school/district]*** buildings is evaluated by conducting a detailed assessment every year. The purpose of this assessment is to identify and evaluate potential IAQ issues that may be associated with buildings or operations. The ***[IAQ Coordinator, consultant, etc.]*** evaluates building systems, which ensures an individual with expertise examines all areas of the buildings every year.

The **[*IAQ Coordinator or Team and consultant*]** developed the evaluation method, which is equivalent to the Tools for Schools walkthrough, ventilation, and maintenance checklists. This evaluation is like a ‘super walkthrough’ inspection because it goes beyond an overview walkthrough inspection and has additional focus on the ventilation systems and maintenance operations***[add any additional areas]****.*

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The IAQ Coordinator ***[and consultant]*** reviews findings and drafts ideas to address findings. If the source of problems cannot be identified and concerns persist, a different evaluation method may be used. Information from the evaluations is used during the walkthrough inspections to verify or further investigate the issue. Records of annual evaluations are kept in ***[state location, such as an Attachment to Plan***]. Identified issues are addressed, as described in Section 8 with details in ***[the annual ‘Plan to Address Identified Issues’; see Attachment 3 for an example chart.]***

### 7. Walkthrough Inspections *[Recommended]*

An IAQ walkthrough inspection is conducted annually of all functional spaces in buildings that house administrative or educational operations. The purpose of the walkthrough inspection is to identify new problems, further evaluate previously identified problems, and confirm corrective actions and other changes. The inspection is a quick overview of each building; a more detailed evaluation is conducted through the building systems evaluations (see ‘Building Evaluations’ policy). The walkthrough inspections provide insight regarding the type, location, and magnitude of apparent IAQ-related issues and problems.

The walkthrough inspections assess IAQ visually and through smell. The inspections check the occupied spaces (classrooms, hallways, offices, kitchens) and other areas that may affect IAQ (exterior, roof, mechanical rooms, bathrooms, storage rooms, and boiler rooms). The walkthrough identifies problems related to cleaning, fresh air ventilation, pests, nearby pollutants, pesticides, moisture, walk-off mats, temperature, humidity, odors, mold, occupant concerns, dry drain traps, exhaust ventilation, chemicals, fuel containers, engines, combustion appliances, lead, and radon.

***[The following issues are emphasized:***

1. ***Water intrusion problems (interior and exterior)***
2. ***Ventilation performance and air cleaning***
3. ***Cleanliness of buildings and classrooms***
4. ***Need for O&M programs (e.g., ventilation, carpet, structural)]***

**[*Include if relevant: testing parameters such as carbon dioxide, carbon monoxide, temperature, humidity, moisture meter measurements, air flow, pressure differentials, etc. to detect potential IAQ issues, and the guidelines used to interpret the measurements***.**]**

***[Depending on which method is used to conduct building systems evaluation, choose the appropriate option below, and edit as needed]***

***[Option 1: The [Tools for Schools or name alternative] ‘Walkthrough Checklist’ is used in the walkthrough inspections [see Tools for Schools Walkthrough Checklist in the Tools for Schools folder or web site]***

***[Option 2: A checklist developed by [e.g., consultant, IAQ Team, etc.] is used. Walkthrough inspections are combined with the other building systems evaluations to form a ‘super walkthrough inspection’.***

IAQ issues identified during the walkthrough inspections are addressed by ***[the IAQ Team, Coordinator, or consultant].*** This is described in the ‘Schedule to Address Identified Issues’ policy***.***

Copies of the walkthrough checklists are kept with the IAQ Plan in ***[Attachment X].***

### 8. Schedule to Address Identified Issues *[Recommended]*

Routine assessments, such as the walkthrough inspections and building systems evaluations, may identify IAQ issues that need attention. These issues are prioritized from most important to least important and tracked in the ‘Schedule to Address Identified Issues Table’ located ***[in Attachment 3]***.

Issues are categorized and addressed through one or more the following methods:

1. Completing one-time repairs (immediate or near future actions).
2. Scheduling and executing mid to long- term projects.
3. Identifying deferred maintenance items that may be addressed if/when funding is available.
4. Adopting new policies and practices as part of the IAQ Plan annual review.

The schedule describes the timeline to correct the IAQ issues. It also assigns an individual who is responsible for completing the task or overseeing the work. The IAQ Plan is also updated every year to address identified issues. Responses to specific staff concerns and complaints are address according to the ‘Concerns’ policy, and records are maintained [***separately or under this ‘Schedule to Address Identified Issues Table’***].

### 9. Mercury *[Recommended in IAQ Plan; certain regulations apply]*

Mercury can affect the brain and nervous system. It may be found in: 1) areas where previous spills occurred, 2) certain building materials, and 3) some instruments. These items are more likely to be found in chemical storage areas, science laboratories, nurses’ offices, and certain gym floors.

In compliance with MN Statute 121A.33, elemental mercury and mercury-containing instruments are not permitted on school grounds. ***[school / district]*** no longer purchases mercury containing instruments (such as thermometers, barometers, etc.). This prohibition does not apply to light bulbs or thermostats for heating, ventilation, and air conditioning.

School staff have evaluated all buildings for the presence of mercury containing chemicals, instruments, and materials. [***No mercury was found or identified mercury contamination and/or items were safely removed in compliance with hazardous substance regulations. The presence of new mercury containing items brought to schools is checked during (walkthrough inspections, building evaluations, other method). The school/district has determined polyurethane flooring and mats (does/does not) contain elevated levels of mercury (if elevated, explain actions to reduce levels or remove)].***

While mercury is prohibited in our schools, in the unlikely event that mercury is brought to school, school staff are prepared to respond to a mercury spill. In the event of a spill, school staff will follow Minnesota Pollution Control Agency (MPCA) guidance. Students will be removed from the affected area. The space is isolated from the rest of the building. Mercury spill clean-up kits are present and will be used for small spills (one thermometer or less). In larger spills, school staff will contact the Minnesota Duty Officer (1-800-422-0798 or 651-649-5451) and possibly local authorities and the MPCA.

### 10. Smoking, Tobacco, and E-cigarettes *[Recommended in IAQ Plan; certain regulations apply]*

***[school/district]*** protects employees, students, and the public from the hazards of secondhand smoke and involuntary exposure to aerosol or vapor from electronic delivery devices. Secondhand smoke and e-cigarette aerosols harm the cardiovascular system and can cause cancer.

Tobacco smoking, chewing, and ingestion are prohibited in all school facilities and vehicles (as mandated under MN Statute 144.4165). Carrying or using an activated electronic delivery device (such as an e-cigarette) is also prohibited. The prohibition includes lighted or heated products containing, made, or derived from nicotine, tobacco, marijuana, or other plant, whether natural or synthetic, that is intended for inhalation. Signs are posted at all entrances.

The lighting of tobacco by an adult as a part of a traditional Indian spiritual or cultural ceremony is permitted (under MN Statute 144.4165). An American Indian student or staff member may use tobacco, sage, sweetgrass, and cedar to conduct individual or group smudging in a public school (permitted under MN Statute 121A.08). The process for conducting smudging is determined by the building or site administrator. Smudging must be conducted under the direct supervision of an appropriate staff member, as determined by the building or site administrator. In addition, an American Indian student may carry a medicine pouch containing loose tobacco intended as observance of traditional spiritual or cultural practices.

[***While the state law does not apply to outdoor smoking, the [school / district] has also banned smoking/tobacco on school grounds (except for the exemptions described above). Further information about our smoking policy, laws, and its implementation (such as sensors, student disciplinary policies, complaint public records) can be found in (state the location)].***

### 11. Pest Management *[Recommended in IAQ Plan; certain regulations apply]*

Pests (such as mice and cockroaches) and pesticides can cause health problems, such as allergy and asthma symptoms. Integrated Pest Management (IPM) is an important strategy for maintaining IAQ because it reduces both pesticide use and pest problems.

The school strives to minimize pesticide use and utilize non-chemical options where feasible. Individuals that apply certain pesticides must be properly licensed by the Minnesota Department of Agriculture. [***The school/district contracts with X pest management company and stipulates in its contract with the company that proper licensing is maintained. Pesticides are only applied indoors during unoccupied times and with fresh air supply air set to 100 percent outdoor air. If pesticides are applied outdoors, by an air intake, this work is also done during unoccupied times and the intake is turned off].*** Landscaping is maintained to reduce pest harborage, including pruning shrubs and trees that are touching walls.

Parents and staff are notified about the application of certain pesticides, per MN Statute 121A.30, by September 15 of each school year. General notification occurs through ***[state method, e.g., making available in school office, annual newsletter, etc.].*** Individual notification is also provided, when requested by a parent or staff. The ***[school / district’s]*** notice and associated policies are in ***[state the location: official school handbook or policy guide]*.** Copies of individual notification are kept for six years, filed in ***[state location]***

***[To prevent pest problems, eating in classrooms is restricted as follows:***

1. ***no snacking or one snack time per day;***
2. ***no lunch brought back to classrooms;***
3. ***no food stored in classrooms or food stored in sealed hard plastic or metal containers;***
4. ***one party per month that includes food]***

### 12. Asbestos *[Recommended in IAQ Plan; certain regulations apply]*

Asbestos is a mineral fiber that can be found in some building materials, such as floor tiles, linoleum, pipe insulation, ceiling tiles and wall plaster. If these materials are damaged or disturbed, they may release asbestos fibers into the air. Airborne asbestos fibers pose an increased health risk for mesothelioma, lung cancer, and asbestosis.

In compliance with federal law, ***[school / district]*** has developed and maintains an Asbestos Hazard Emergency Response Act (AHERA) Management Plan. This plan reduces the likelihood of exposure to asbestos. Asbestos containing materials are regularly inspected. Removal is done safely, following applicable state and federal laws. The AHERA plan is available for review and located in ***[school office].*** Parent, teacher, and employee organizations are notified yearly about the AHERA Plan by ***[state medium].***

### 13. Carbon Monoxide *[Recommended in IAQ Plan; certain regulations apply]*

Carbon monoxide (CO) can leak into buildings from combustion appliances and equipment that are not installed, operated, or maintained correctly. When CO is inhaled, it can cause poisoning. Symptoms can range from mild (breathlessness, dizziness, headache) to severe (collapse, loss of consciousness, death).

CO alarms have been installed in all existing rooms containing fuel-burning appliances (in compliance with MN Mechanical Code of the MN Building Code, Section 313). Appliances are defined in the Mechanical Code as a device or apparatus that is manufactured and designed to use energy and for which the code has specific requirements. This includes rooms with fuel-burning boilers, water heaters, cooking appliances, radiant heating systems, clothes dryers, sauna heaters, pool heaters, kilns, engine and gas turbine powered equipment, fireplaces, and furnaces. Battery-operated alarms are allowed in existing construction. The alarms must be listed in accordance with UL 2034.

CO detection systems have been installed in new school buildings constructed since 2020 (in compliance with MN State Fire Code Chapter 9, Section 915). Detection is required for any appliance, equipment or device that is a potential source of carbon monoxide due to the combustion of a fuel-source. This includes rooms with fuel-burning boilers, water heaters, forges, furnaces, bunsen burners, engines, welding, clothes dryers, ovens, ranges, and kilns. The detection system’s sensor locations, operations, and maintenance are described in MN State Fire Code Section 915. ***[or reference the document, such as licensed design professional specifications].***

CO and NO2 detection systems are also present in parking and repair garages constructed since 2009 (in compliance with MN Mechanical Code 404). The detection system activates ventilation to control levels of combustion byproducts from running vehicles.

Combustion appliances are checked annually as part of ***[the annual maintenance evaluation, preventive maintenance, walkthrough inspection]***. The inspection checks for signs of CO back-drafting and leaks. The ***[IAQ Coordinator/service provider]*** conducts the inspection ***[, which includes*** ***looking for visual signs, checking airflow with smoke tubes, CO testing inside appliances, CO testing around appliances, depressurization of space per combustion safety protocols, etc.]***. For more information, see ***[‘6. Building Evaluations’].***

In addition, during renovation projects where fuel-burning appliances are used, ***[staff/contractor]*** monitors for CO through ***[describe precautions such as: spot check with CO devices; continuously with detection system; and/or checking negative pressure in construction areas, other]***.

### 14. Lead *[Recommended in IAQ Plan; certain regulations may apply]*

Lead can be found in paint and varnishes, in pre-1978 building structures, and possibly other materials and items. When lead is released as dust or chips, individuals may inhale or ingest the lead. This can affect the nervous system, and young children are particularly susceptible.

The ***[school / district]*** has determined areas that have lead paint. When lead paint is disturbed, lead-safe work practices are employed that minimize the exposure of building occupants to airborne lead-based paint particles. The ***[school / district]*** complies with laws concerning lead paint abatement and lead renovation, repair, and painting (RRP). These laws apply to pre-1978 schools used by children under the age of six. When lead paint abatement is being planned: 1) the school hires a MDH licensed lead risk assessor or assumes all paint has lead in it; and 2) MDH certified lead firms are hired to abate any lead hazards identified or assumed to be lead paint. In addition, EPA certified lead renovation firms are hired to conduct any renovation activities that may disturb lead paint. If lead is present, then the renovation will bemanaged by ***[choose one: 1) the district employee X who is a certified renovator; or 2) hired certified contractor].***

Additional information about the lead policy and compliance with RRP can be found in ***[state location].***

### 15. Arena Air Quality *[recommended in IAQ Plan; certain regulations may apply]*

Fuel-burning ice resurfacing equipment emit carbon monoxide and nitrogen dioxide into the air, which may cause health problems.  Since ***[school / district owns / operates]*** an ice arena, district staff must comply with the Minnesota Ice Arena Rule (MN Rules, Chapter 4620.3900 - 4620.4900), to ensure acceptable air quality in the arena.

The ***[arena manager, health and safety coordinator, other person]*** coordinates activities related to compliance. This includes maintaining acceptable air quality, annually applying for certification, annually training staff, keeping records, and ***[testing air quality after resurfacing, edging and use of other combustion-powered equipment].*** [***In addition, staff conduct regular maintenance of the resurfacer(s) and operate ventilation during and after operating resurfacer(s)].***  The record-keeping log can be found in the arena building, specifically in ***[cabinet/shelf in room].***

### 16. School Bus Idling *[Recommended in IAQ Plan; certain regulations may apply]*

Vehicle exhaust contain gasses and particles that can affect the lungs and heart. Children are particularly vulnerable to diesel emissions.

To reduce exposure to combustion by-products from diesel school buses, ***[school / district]*** has adopted a policy to limit bus idling and established parking and loading zones away from school air intakes, in compliance with MN Statute 123B.885.School bus loading zones are located ***[X feet, e.g., 100 feet]*** away from building entrances and fresh air intakes. If this location is deemed unsafe, blocks traffic, or is not cost-effective, the location can be reviewed by the school board. In addition, idling is ***[never permitted (for newer engines that need no warm-up) or limited to specific duration under specific situations (turbo-charged buses, sub-freezing temperatures) as detailed in the bus operator manual***. ***Buses do not park in a line, to limit intake of tailpipe emission from one bus to another; or keep a minimum of three car lengths if in a line].*** Bus drivers are educated about this policy when hired, and refresher training is conducted ***[every year/other time frame as part of annual meeting]***.

***[School busses have been retrofitted or have newer engines that meet newer emissions standards, which also helps to reduce exposure]***

***[The school / district also has a no idling policy for other vehicles, such as cars and delivery vehicles. Signs are posted in loading areas. Parents and vendors are educated through announcements and our district website.].***

### 17. Radon *[Recommended in IAQ Plan; certain regulations may apply]*

Radon is a naturally occurring gas that can enter any building from the underlying soil. In some cases, radon can build-up in classrooms, which may increase occupants’ risk for developing lung cancer. While radon testing is not required, **[*school / district*]** has chosen to test buildings. **[A*ll schools were tested on (list dates) and on a schedule to be tested every 2 or 5 years].***

In compliance with MN Statute 123B.571, when radon testing is conducted:

* The Minnesota Department of Health radon testing plan is followed;
* The results are reported to the Minnesota Department of Health; and
* The results are reported at a school board meeting.

Radon testing and mitigation is conducted by licensed individuals following the requirements in statute, rule, and national radon standards (according to MN Statute 144.4961). Testing is conducted between November 1 and March 31, using short-term tests, on school days or with HVAC operating under occupied conditions. The following rooms are tested: 1) all occupied and intended to be occupied rooms in contact with the ground; 2) 10% of upper floor rooms; and 3) other rooms specified in the ANSI/AARST standard, where applicable. Follow-up testing is completed in rooms that have radon ≥ 4 pCi/L. A continuous radon monitor is the preferred method of follow up-testing, to evaluate levels during occupancy. If elevated radon is confirmed, mitigation is completed in occupied and intended to be occupied rooms. After mitigation, the building is re-tested to verify radon reduction.

Further information, including ***[radon test results and mitigation]*** conducted in district buildings, can be found in **[*state the location*]**.

### 18. Pool Operation *[Recommended in IAQ Plan; certain regulations may apply]*

Chlorine used in pools can bind to swimmers’ body waste and form chemicals called chloramines. This chemical can off gas from the water and irritate the skin, eyes, and respiratory tract.

To reduce exposure to chloramine in pool areas, operation and maintenance are conducted in compliance with state pool code requirements. This includes:

* Posting sign and posters to encourage swimmers about personal hygiene and showering
* Ensuring airflow maximizes fresh air across the water’s surface, and sufficient fresh outdoor air and exhaust ventilation is supplied
* Monitoring combined chlorine levels in the water and treating the water when levels are too high

***[Long term measures to reduce chloramine have also been implemented and/or are planned; describe, such as use of ozone or UV technologies to treat water]***

### 19. Communication *[Recommended in IAQ Plan; certain regulations may apply]*

Communication is a critical element to successfully manage IAQ. The IAQ Coordinator and other district authorities try to limit misinformation and confusion through effective communication. When an IAQ issue is raised or identified, communications are completed throughout the assessment and resolution process. The IAQ Coordinator and other district employees communicate with relevant parties in a prompt, courteous, and consistent manner until the issue is resolved to the greatest extent possible. It is the goal of **[*school / district*]** to develop and maintain the trust of the community and staff.

When notified by the Minnesota Department of Health or Pollution Control Agency of environmental hazards that may affect the health of students or school staff, the **[*school / district*]** notifies school staff, students, and parents of the hazards as soon as practicable (in accordance with MN Statute 121A.336). The notice provides directions on how to obtain additional information about the hazard, including any actions that may reduce potential harm to those affected by the hazard.

The IAQ Coordinator is prepared to answer parents’ basic questions, as described under the ‘IAQ Coordinator’ policy. A list of checklists and other resources, which parents can use to evaluate IAQ at home, can be found in Attachment 4. This information is provided to parents to complement efforts to evaluate IAQ concerns in the school.

The IAQ Team and Coordinator inform parents and staff annually about the following:

1. The IAQ Plan and how to view the Plan upon request
2. How to report IAQ concerns
3. How to contact the IAQ Coordinator
4. Scheduled pesticide applications and how to be notified individually about unscheduled applications

**[*school / district*]** informs parents and staff about the availability of this IAQ information through **[*name the media used (such as the school newsletter, “Right-to-Know” notification, a specific letter, or some other way) and time of year (usually the beginning or specifically by September 15 for listed pesticides)*]*.***

In the unlikely event of an IAQ emergency, the district will strive to accommodate the needs of students, parents, and staff. The media will be alerted when it is necessary to provide information to a broader audience. Every effort will be made to share appropriate information as soon as it becomes available to the school district.

### 20. Concerns *[Recommended]*

[***school / district*]** encourages the reporting of all IAQ concerns. The prompt reporting and resolution of IAQ issues has the potential to prevent serious problems from developing, which should prevent potential health effects, discomfort, and unnecessary costs. This makes the investigation of all reported concerns worthwhile.

The IAQ Coordinator **[*may or will ask*]** concerned individuals report their IAQ concern in writing. A written description of the concern should reduce misunderstanding and create a history that can be referred to at a future date. The‘IAQ Concern Reporting Form’, located in Attachment 2,is made available to staff and parents. This form should be completed and sent to the IAQ Coordinator to initiate an official IAQ concern reporting process.

The IAQ Coordinator investigates the concern using **[*state what is used, such as the TfS documents, MDH’s library of resources, etc.*]** and the information described ‘IAQ Concern Reporting Form’. The IAQ Coordinator may meet with the individual to collect additional information. Findings and any changes implemented are documented. The IAQ Coordinator reports the measures taken and the resolution of the identified concern to the individual. Other staff are also contacted, if affected, including maintenance, administrators, and service providers. This ensure all interested parties know about the issue and the action(s) that have been taken, and it should minimize misinformation. Where possible, the resolution of the issue, to the satisfaction of the concerned individual, is also documented.

If the problem cannot be identified or persists despite the school staff’s efforts to identify and remediate it, the IAQ Coordinator discusses the matter with the appropriate school official(s), to determine whether a contracted service provider is needed. When the problem requires a policy change or significant resources, the IAQ Coordinator discusses specific policy changes or needed resources with the **[*IAQ Team, health and safety committee, superintendent, business manager, school board*]**.

Completed IAQ concern forms and associated documents are stored in **[*state location, such as Attachment 2*]**. Information collected is processed and stored according to data practices policies. Findings and changes associated with reported concerns are reviewed during the annual review, or sooner if needed, to determine whether changes to the IAQ Plan are warranted.

### 21. Ventilation *[Recommended]*

Adequate outdoor air and local exhaust ventilation are critical components of buildings. Ventilation rates affect occupant comfort and satisfaction. Ventilation can also reduce odors and contaminant levels. Local exhaust ventilation prevents contaminants from migrating from storage and contaminant producing activities to other part of the building. Adequate ventilation can benefit learning outcomes and prevent illnesses, including the transmission of respiratory illnesses through aerosols exhaled by occupants.

Adequate ventilation (outdoor air supply) under normal operations means ***[X air changes per hour (ideally 5+ eACHs when factoring air cleaning) and/or x cubic feet of outdoor air per minute per person (such as 15+ cfm/p]***. School staff maintain the school buildings according to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) recommended parameters described in standards 55 and 62 ***[and 241, if applicable***]. If the current parameters cannot be met, school staff make ventilation adjustments that provide a fresh air delivery, temperature, and humidity level that are as close as possible to the ***[year]*** ASHRAE standard and that meet the building code requirement applicable to the heating, ventilation, and air conditioning (HVAC) systems. HVAC systems are inspected periodically as described in the operations and maintenance schedule (see policy and attachment 1). ***[Commissioning, retro-commissioning, re-commissioning, and annual ventilation assessments are conducted by service provider X to assess the performance of the ventilation equipment]***

***[The district follows guidance from MDH, EPA and CDC to reduce COVID and respiratory infectious disease transmission. Ventilation improvements were made in response to the COVID pandemic including: ventilation assessments, increased outdoor air supply beyond ASHRAE standards to (X cfm/person or Y air changes per hour), operating ventilation for 2 hours before and after occupancy, ensuring negative pressure in higher risk areas (nurse’s office, bathrooms, band, choir room, gym, exercise rooms), ensuring no high velocity air flows from person to person, use of fans to enhance air mixing, use of CO2 sensors to continuously monitor ventilation. These enhanced operations are (select: 1) ongoing or 2) implemented as needed when local authorities with jurisdiction or school leadership have determined there is an increased risk of infection].***

### 22. Filtration *[Recommended]*

Filters in air handlers and portable air cleaners can remove some pollutants from outdoor and indoor sources. This includes smoke particles that can damage the heart and lung, allergens that can trigger asthma, and respiratory aerosols from occupants that may contain infectious microorganisms. It is preferable to remove the source of pollutants (whenever possible) and ensure adequate ventilation; filtration is a complementary measure in a multi-layered intervention strategy.

Air handling units utilize the highest filtration efficiency filters compatible with the air handlers. The filters have a MERV rating of ***[state or describe the range if it differs by building; MERV 13 or better is ideal, to remove most particles down to 0.3 micron, including respiratory aerosols].*** Filters are replaced according to the operation and maintenance schedule for each building, described in Attachment 1. Filters are also checked periodically for over-loading, moisture, and damage or gaps that could allow for by-pass of air flow.

Portable air cleaners are also used to further reduce particles. These are placed in ***[select: all rooms, all classrooms, nurses/health offices, band and choir rooms, gym, and workout rooms].*** High efficiency air filtration (HEPA) air cleaners are typically used. Ultraviolet germicidal air cleaners may be considered. Air cleaners that have established evidence of safety and efficacy are selected. The clean air delivery rate or room sizing are reviewed when determining the right cleaner for a room. When considering the acquisition and use of products with technology that may generate ozone, staff must verify that the equipment meets UL 867 standard certification (Standard for Electrostatic Air Cleaners) for production of acceptable levels of ozone, or preferably UL 2998 standard certification (Environmental Claim Validation Procedure (ECVP) for Zero Ozone Emissions from Air Cleaners), which is intended to validate that no ozone is produced. ***[The*** [***California certified air cleaner listing***](https://ww2.arb.ca.gov/our-work/programs/air-cleaners-ozone-products/air-cleaner-information-consumers) ***of low ozone air cleaners is also consulted. Noise levels, maintenance needs, and ongoing costs are also considered in the selection of air cleaners.]***

### 23. Preventive Maintenance and Operations *[Recommended]*

Preventive maintenance means the routine inspection, cleaning, adjustment, and repair of building structures and systems, including the heating, ventilating, and air conditioning systems (HVAC), local exhaust ventilation, drain traps, and flooring. Preventive maintenance plays a major role in maintaining the quality of air, by assuring that the building systems are operating effectively and efficiently. Moreover, it helps to maintain a comfortable temperature and humidity in occupied spaces.

**[*school / district*]** preventive maintenance schedules for each building are in ***[see Attachment 1 for example schedule, which needs editing for each specific building]***. It describes the building and ventilation components that are inspected and maintained on a routine basis. The schedule was established using the past experiences, service provider recommendations, the availability of resources, and technical guides (including the manufacturer’s specifications). The person performing the preventive maintenance follows the checklist, documents activities, and the **[*IAQ Coordinator or appropriate staff person*]** monitors its completion. All records of completed preventive maintenance **[*are kept in* *the IAQ Management Plan Attachment 1, building engineer filing cabinet, attached to the operating system, etc.*].**

### 24. Training *[Recommended]*

All district employees play an important role in maintaining and improving air quality. Staff behaviors can affect air quality in a room and specific staff need to be aware of certain policies. In addition, an employee with an understanding of IAQ is more likely to report IAQ concerns quickly and accurately. The ***[school / district]*** staff are educated about IAQ.

**[*school / district*]** performs an annual IAQ training session of all staff, as part of the **[*name of training program, such as health and safety, employee right to know; these could be held at the beginning of the school year, to factor changes*]**. The **[*IAQ Coordinator or other qualified person*]** performs the training. The training **[*summarize training agenda: describing the importance of IAQ to health and learning, behavior factors, operations, and maintenance issues that are associated with IAQ*].**

In addition to the general training, specific staff receive training on policies and procedures related to their rooms or jobs.

1. ***Teachers: animals, food, plants, furniture, clutter, chemicals, air movement/unit ventilators, sensitive students, reporting leaks, reporting IAQ concerns, cleaners***
2. ***Bus drivers: idling***
3. ***Custodians: cleaning, moisture, chemicals, problem identification and reporting***
4. ***Grounds: pesticides, chemicals, grass clippings away from unit vents***
5. ***Facilities staff: ventilation, operations, maintenance, moisture, CO alarms***

**[*If staff are surveyed as part of the building systems evaluations, include the following:***

IAQ Checklists are distributed annually, and these also serve to educate staff. The staff is instructed to complete the following checklists relevant to their work: **[*include the names distributed checklists and such as the ventilation and building maintenance checklists. Describe if checklists are completed as part of the training*]**.

### 25. Renovations *[Recommended]*

The **[*school / district*]** considers IAQ when planning construction and renovation projects. The IAQ Coordinator, **[*IAQ Team*]**, superintendent and school board discuss major structural changes that may affect IAQ. Proposed renovations are evaluated in relation to the school’s history of IAQ findings and concerns reported. This history is summarized in the yearly ‘Schedule to Address Identified Issues’, filed in Attachment 3. In addition, the presence of lead, asbestos, PCBs, and other possible hazards are evaluated prior to renovation, and school staff comply with relevant regulations ***[see ‘Asbestos’ and ‘Lead’ policies]***.

The use of environmentally preferable building materials and products are specified in renovation and construction projects, where cost and quality are comparable to conventional materials. This may include programs such as EPA Safer Choice (aka, Design for the Environment), Green Guard, Green Seal, Carpet and Rug Institute Green Label, and EPA formaldehyde certified.

To the extent possible, major renovations are performed when school is not in session. If renovation projects must be performed while school is in session, the return air from any area being renovated is isolated from the main ventilation system. Other engineering controls, such as plastic sheeting and local exhaust ventilation, may be used to contain and minimize the distribution of dust and other contaminants produced by construction activities. Cleaning operations are more frequent during and after renovation. After completion, additional ventilation may be used to air out chemicals that may off-gas from new materials.

***[Procedures for specific renovations could be provided: roofing repairs involving tar application; installation of new furnishing or other building materials; installation of new flooring; application of finishes, paints, and other coatings.]***

The design and construction of school buildings considers various factors that impact IAQ such as:

1. Site selection (such as water drainage issues)
2. An environmental assessment of the site (such as water table level)
3. External contaminants from neighboring sites (such as farming or industrials activities)
4. Possible radon entry and use of radon resistant construction
5. Building design factors that promote good IAQ and prevent moisture intrusion
6. Internal contaminant sources (such as asbestos or lead-based paint)
7. Space allocation (such as accessibility to HVAC areas or proper storage of chemicals)
8. Building materials and furnishing (such as selecting those that release low levels of gases, are not porous, easy to maintain, and store well)
9. HVAC system design that could affect IAQ, such as air intake and distribution, filters, coil, drain pans, ducts, positive building pressure, ducting of return air, adequate exhaust systems, comfort, humidity, air diffusers

***[Reference could be made to the US EPA resources such ‘Design Tools for Schools’ and ‘Energy Savings Plus Health’, as additional best practices guides used in the planning of renovation and constructions projects.]***

### 26. Mold Prevention and Removal *[Recommended]*

Mold growth in buildings can cause illness (including allergies, asthma, and respiratory symptoms) and costly damage. Molds need moisture, a food source (such as drywall) and moderate temperatures to grow. Moisture control is critical to prevent mold growth.

**[*school / district*]** officials pay close attention to water intrusion and microbial growth during the walkthrough inspections, buildings systems evaluations, preventive maintenance activities, and the investigation of reported concerns. The maintenance staff have received basic training about identifying moisture problems. Other staff are encouraged to report water damage promptly to ***[maintenance lead, IAQ coordinator, building engineer in each building]***. School staff address moisture problems quickly to prevent or minimize microbial problems.

Large flooding events are handled by ***[company name, phone, email].*** This company can respond to water problems at any time, including weekend, and will be contacted as soon as large floods are identified, to initiate restoration, such as drying and cleaning.

Water damaged materials are replaced when possible (e.g., ceiling tiles, boxes, books). Materials that cannot be easily replaced and must be kept (e.g., carpets, sheet rock, insulation, particle board, etc.) are dried, preferably within 24 hours, but no later than 48 hours. Porous materials that remain wet longer than 48 hours are evaluated on a case-by-case basis, but these are usually replaced; porous materials contaminated with sewage or overland flooding are always replaced.

Materials contaminated with mold growth are promptly cleaned or replaced. Mold growth is removed from non-porous (metal, glass, etc) and semi-porous surfaces (solid wood, concrete, etc.) by cleaning with a detergent, **[*followed by application of diluted bleach or other antimicrobial, where necessary, such as sewage or overland flooding*]**, and then thorough drying. If semi-porous are structurally unsound, they are replaced. Porous materials (drywall, carpet, particle board, paper, etc.) that have mold growth are replaced.

Minor mold cleanup may be handled by maintenance staff. Personal protective equipment is used during remediation. Containment measures are used when a large area of mold growth is present or suspected, remediation will create significant dust, or highly sensitive individuals are present. Mold or moisture problems that are larger or difficult to identify or remediate are contracted to a trained professional. Where necessary, the ***[school / district]*** contracts with ***[company name]*** to investigate mold and moisture problem, and ***[company name]*** to remediate mold***.*** Large-scale remediation projects also follow the ‘Renovation and Construction’ policy and ‘Pest Management’ policy, if antimicrobials are applied. The ***[school / district]*** follows guidelines from ***[insert preferred guidelines: USEPA, MDH, IICRC, AIHA, IAQA, etc***.], when work is done by school staff or a contracted service provider.

### 27. Animals *[Recommended]*

Animals can be a source of allergens that cause allergy and asthma symptoms, and microorganisms that can cause infectious diseases, bites, and stings. **[*school / district*]** has adopted an animal policy that strives to minimize animal-related problems while recognizing the positive educational role animals can have in schools.

Information gathered from walkthrough inspections, building systems evaluations, IAQ concern reports, and staff meetings is used to create and update this policy. Specific types of animals will be restricted if a valid concern is expressed by staff, students, or parents. The ***[school / district]*** reserves the right to prohibit certain animals if they pose a threat to the safety or well-being of staff and students.

Before an animal is brought to a classroom, the teacher must request permission from ***[nurse, administrator, etc.]***. If a sensitive individual is present or uses the room, then the request may be denied. Requests for animals that are merely pets and serve no educational purpose may also be denied. This policy does not apply to service animals, which are permitted in school buildings. If or when animals are brought to school on a temporary basis (e.g., ‘show and tell’ events), the event will be held, where possible, outdoors or in a room with a hard floor (e.g., gym). Cold-blooded animals (fish, reptiles, amphibians) are recommended over warm-blooded, or feathered animals (mammals and birds).

If an animal is permitted, the responsible staff person is expected to watch for any obvious health symptoms that may be related to the animals, such as respiratory or skin symptoms. The staff person is also responsible for the care of the animal, including cleaning and maintenance of the habitat and other areas that may become soiled. Staff and students’ hands must be washed after handling animals or contacting their waste. Animals must be kept in an appropriate habitat when they are not being used for education. They should be kept away from carpeted areas, to minimize the transfer of allergens to and soiling of the carpets. Animals should be kept away from air supply and return vents. If staff do not follow these practices, the administration may instruct the staff to remove the animal from school.

### 28. Plants *[Recommended]*

Individuals can be allergic to certain plants, such as cut flowers and flowering plants. In addition, mold can grow on the soil, plant, or pot. Due to prior problems with plants in school buildings, the ***[school/district]*** has adopted a plant policy.

Up to three plants are permitted per room. Flowers and flowering plants are discouraged; flowers delivered should be taken home at the end of the day. Staff are responsible for plants in their area, and they should immediately clean up any water or dirt that spills out of the plant. Plants should not be over-watered and cannot be placed on carpet, ventilation equipment, or other locations where accidental over-watering can cause problems. Plants that develop mold (on leaves, on soil, or pot) must be removed.

### 29. Cleaning and Chemicals *[Recommended]*

Regular and thorough cleaning is an important means for the removal of air pollutant sources. Keeping flooring and furniture clean can help to minimize dust, allergens, chemicals, and other contaminants. The cleaning products themselves, however, may release chemicals into the air, which may trigger respiratory illnesses.

To ensure that cleaning practices remove pollutant sources while using cleaning products appropriately, the following standards have been adopted.  **[*consider* *the following*]**:

1. Custodial cleaning products are stored in a secure area. All bottles must be clearly labeled according to OSHA requirements. Bottles of cleaning agents must be closed tightly when stored. Products are stored in rooms with local exhaust ventilation.
2. Environmentally preferable (‘green’) products are used for general cleaning purposes, such as Green Seal certified, EPA Safer Choice (Design for the Environment) or equivalent products, where cost and performance are comparable to conventional cleaning products.
3. Where enhanced cleaning and disinfection is necessary to reduce respiratory disease transmission (such as COVID), products are selected from the EPA ‘List N: Disinfectants for Coronavirus (COVID-19)’.
4. Art supplies that are non-toxic under the Arts and Crafts Materials Institute (D4236) standard are used.
5. Aerosol products are avoided, whenever possible, in favor of other formulations.
6. Air fresheners, diffusers, essential oils, and other scented products are not used (a fragrance-free policy).
7. HEPA-filtered vacuum cleaners are used to clean carpeting and entry mats.
8. Microfiber cloths are used to clean hard floors and smooth surfaces.
9. Teachers and other staff are provided a green cleaner for spot cleaning. Staff and students are not permitted to bring cleaning products from home, including wipes.
10. Teachers and other staff are encouraged to minimize clutter, to ensure rooms are easier to clean and to minimize dust collecting surfaces.
11. Students do not handle cleaning and disinfection supplies. ***[or at least: Children do not use products labeled ‘keep out of reach of children’].***
12. All material safety data sheets are stored in an area available to all staff, and the location of this information is discussed in the district’s ‘Employee Right to Know’ annual training.
13. Most cleaning and other maintenance is completed during unoccupied hours. Most routine cleaning is performed after school.
14. The building and rooms are maintained at reasonable cleanliness. Each building’s operations and maintenance schedule specify the cleaning and maintenance schedule for flooring, entry mats, and furnishings, and these schedules can be found in Attachment 1.

### 30. Flooring and Furnishing *[Recommended]*

New flooring and furniture may emit volatile organic compounds, which can irritate people’s airways and trigger asthma. Older furniture and flooring accumulate dust, allergens, and dust mites, which can be released into the air from time to time. If porous flooring or furniture becomes wet, they can develop mold growth.

When performing building evaluations, walkthrough inspections, and reviewing concern reports, the condition of flooring and furnishings is evaluated. Where persistent problems are found, the flooring or furniture is replaced, preferably with low-maintenance, smooth, and non-porous surfaced flooring, and furniture.

Flooring and furniture are cleaned according to the operations and maintenance schedule, which can be found in Attachment 1. Carpets are vacuumed and hard flooring mopped ***[daily, or high traffic daily]***. In addition, carpet is deep cleaned (extracted) and hard flooring is refinished every ***[X]*** months. Carpeting is not cleaned with wet methods during summer months unless humidity levels are low, and the carpet can be dried within 24 hours. After extraction cleaning, carpeting is dried with ***[describe method(s): floor fans, dehumidifiers, continuous operation of the ventilation system, opening window if outdoor air is dry].*** Hard flooring is re-finished during the summer using environmentally preferable products.

**[*Carpets will be phased out throughout or in certain parts of school buildings. Heavy traffic areas, hallways, building entrances, science laboratories, bathrooms, art rooms, areas where food is eaten, and shop rooms will not have carpeting, and hard flooring will replace existing carpets.]***

When purchasing flooring and furniture, the ***[school / district]*** prefers environmentally preferable products, such as Green Guard, Green Label, and EPA formaldehyde certified products. All purchased flooring must be free of mercury. Staff are not allowed to bring personal furniture or area rugs to school. The ***[school / district]*** approves and purchases furniture that is used on school property. Installations of flooring and furniture follow the ‘Construction and Renovation’ policy.

Walk-off mats reduce dirt, pollen, chemical residues, and moisture that could be tracked into buildings. Walk-off mats are placed at every entrance and are all at least ***[three]*** steps long, with ***[five]*** steps at main entrances. The mats have ***[two/three]*** types of material to remove coarse to finer contaminants. Mats must be cleaned routinely to be effective, and are checked for excess loading and moisture, including underneath the mats (this can lead to mold growth). They are checked and cleaned according to the district operation and maintenance schedule (see Attachment 1). Landscaping is maintained and designed to minimize dirt and moisture in front of building entrances.

### 31. Outdoor Air Pollution *[Recommended]*

Outdoor air pollution, from agriculture, industry, wildfires, or traffic, may affect school occupants’ health and comfort. Pollutants, such as fine particulate matter, ozone, and odors, can be a problem intermittently.

The IAQ Coordinator tracks the daily air quality index. When air quality is not ‘good’, steps are taken to protect staff and students. Outdoor and strenuous activities may be limited, depending on conditions, following the MN Pollution Control Agency guidance. Individual susceptible children have been identified and additional precautions may be taken to protect their health.

Building operations and maintenance improvements have been made and may be adjusted when necessary. Higher efficiency filters ***[MERV X]*** have been installed in the HVAC systems to filter particle pollution. Exterior windows and door are kept closed. Limitations to idling have been implemented, as described in the ‘Bus Idling’ policy, and idling limits of other vehicles ***[have or may be]*** established as needed. The school buildings are operated at positive pressure to limit the infiltration of outdoor air pollution, and this pressurization is checked periodically during ***[ventilation assessment or balancing conducted every X years].*** Portable air cleaners are deployed to provide additional air cleaning. Any indoor sources of particle pollution are minimized, if possible, such as cooking, kilns, aerosol products, and vacuuming during school hours.

***[Due to proximity to industrial plant, agriculture, busy highway, school / district has adopted practices and procedures to minimize exposure to possible air pollutants. School administrators have contacted the nearby industrial plant/feedlot and established a working relationship, to ensure any problems or incidents that may affect staff or students will be reported to the school administration promptly.]***

### 32. Extreme Heat *[Recommended]*

Elevated heat conditions can cause discomfort and affect learning. In more extreme conditions, it can cause heat exhaustion, heat stroke, and increase the risk of cardiovascular disease (stroke, heart attacks). Hotter temperatures have become more common and can be a problem during the start or end of the school year. Due to a lack or air conditioning ***[in buildings X, Y, Z, or specific rooms, like kitchens]***, measures are taken to protect student and staff during times of extreme heat.

The school district complies with OSHA requirements (such as 5205.0110) to protect worker health and safety. Monitoring of adequate ventilation and airflow, as described in other sections of this plan, help to prevent heat hazards. Workspaces are monitored for elevated heat conditions, according to OSHA criteria, depending on work activity intensity.

***[To prevent extreme heat, ventilation and shading improvements have been made in buildings that lack air conditioning. When the temperature is elevated (define, such as OSHA’s 77 F recommendation or the ASHRAE upper limit of 80 F for summer comfort, depending on humidity and air flow), portable air conditioners and fans are deployed in rooms. Staff and parents are notified and encouraged to wear light clothing. Physical activity is limited in physical education and other activities. Frequent water breaks are taken to encourage hydration. Classes may be relocated to parts of the building that are cooler. The district nurse tracks which staff and students may be more vulnerable to extreme heat; additional precautions may be taken to protect these staff and students. Hours of operation may be reduced in consultation with district leadership].***

### 33. Emergency Response *[Recommended]*

Emergencies are defined as situations that require immediate action. IAQ-related emergencies include situations that are potentially life threatening, such as the following:

1. widespread and sudden complaints of headaches and nausea or combustion odors
2. confirmed infectious air borne disease (e.g., Legionnaire’s, measles, coronavirus)
3. liquid spills (e.g., mercury) or gaseous leaks (e.g., pool chlorine) of hazardous materials

In addition, emergencies include situations where there is limited time available to prevent serious property damage or health problems, such as major flooding.

Emergencies are determined on a case-by-case basis, using the above definition as a general guideline only. If doubt exists about whether exposure to a specific hazard constitutes an emergency, a precautionary approach may be used where the matter is handled as an emergency. Non-emergency situations are addressed according to the ‘Concerns’ policy.

Details of the ***[school / districts]*** emergency preparedness and response plan can be found in ***[state location].***

***[Defining a non-emergency could be considered to serve as a general guideline to assist decision-making. This policy could provide examples of what is classified as a “non-emergency”:***

* ***a slight odor,***
* ***moderate stuffiness in a classroom.***

***An overview of the incident command structure could be provided. In emergency situations, the superintendent could be the “commander”. Additional staff could also be identified.***

***A summary of typical procedures could be provided, like contacting county hazard response and state duty officer.]***

Minnesota Department of Health  
Indoor Air Unit  
625 Robert St N  
PO Box 6975  
St. Paul, MN 55164-0975  
651-201-4933  
[indoorair.healthl@state.mn.us](mailto:indoorair.healthl@state.mn.us)  
[www.health.state.mn.us](http://www.health.state.mn.us/)

9/20/24

To obtain this information in a different format, call: 651-201-4933